Address decoding for read& write	M word x N bit Memory with each bit comparison	M bit priority encoding block
	Read/write and search buffer	

$\uparrow$ N bit wide input content
to be compared
with all the m word bit to bit

Hit
(miss

Log_2 M bit
hit address

FIGURE 1   The functional block diagram of TCAM

Sub-block

II 8x8

I 8x8

(4)

left

righ

(3)

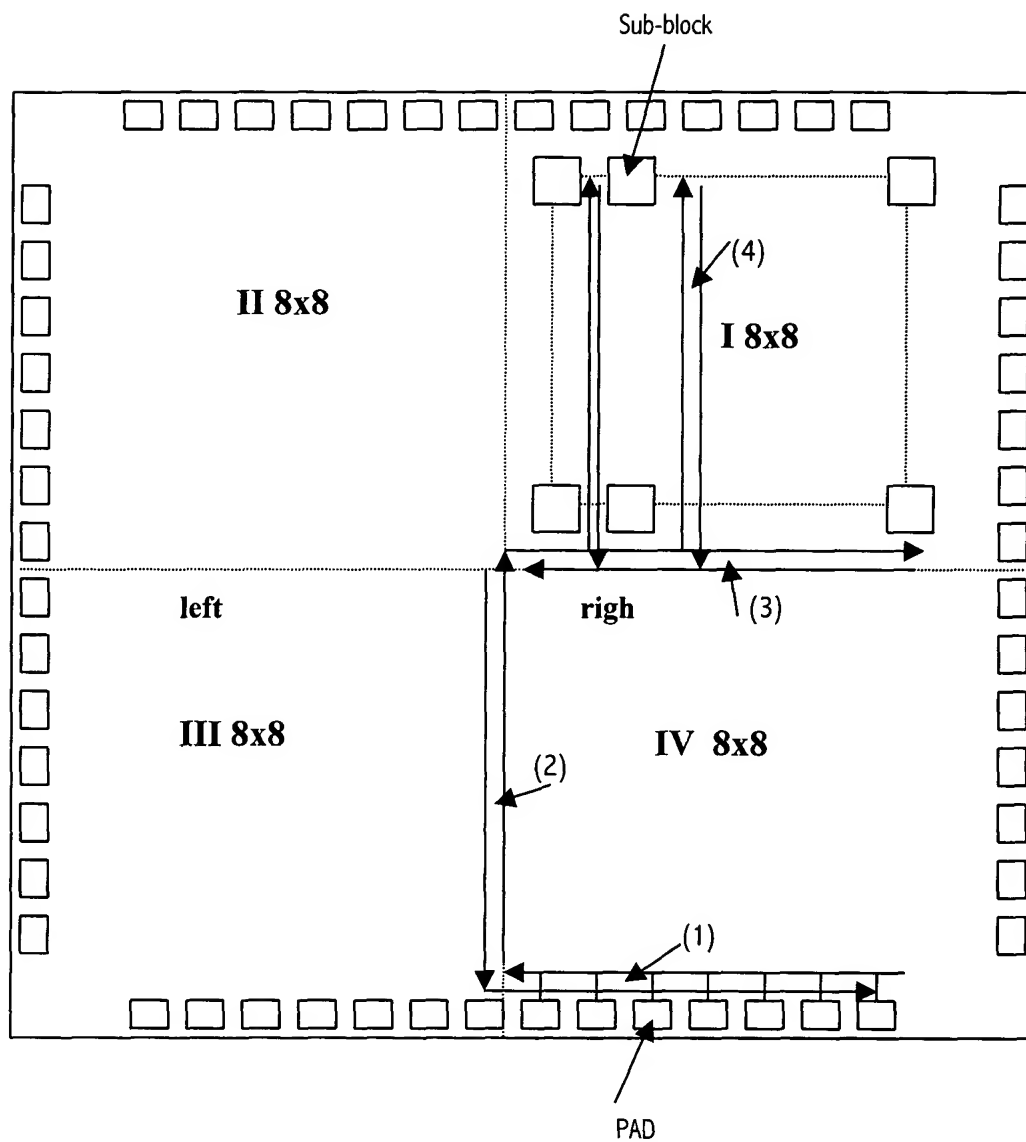III 8x8

IV 8x8

(2)

(1)

PAD

Fig.2   Floor planning of Scalable pipe line architecture with
hierarchy decoding and priority encoding